

CLAIM AMENDMENTS

IN THE CLAIMS:

This listing of the claims will replace all prior versions, and listing, of claims in the application or previous response to office action:

1. (CURRENTLY AMENDED)~~Metering~~ A metering device, featuring~~comprising~~:
 - an actuator unit-~~(A)~~ comprising
 - a housing-~~(1)~~ with an actuator-~~(2)~~ introduced into the housing, and
 - a hydraulic compensation element-~~(X)~~ able to be filled under pressure with a fluid, which is connected to the actuator, ~~with~~wherein
 - a first end of the actuator-~~(2)~~ is provided with a first end cap-~~(3')~~
 - a stop-~~(14)~~ is arranged in the form of a seat on the housing-~~(1)~~, which is opposite the first end cap-~~(3')~~ and defines a stop position for the first end cap,
 - the stop-~~(14)~~ maintains a distance between sealing element-~~(6)~~ of a valve unit-~~(B)~~ and the end cap-~~(3')~~, with the distance being smaller than the stroke distance effected by the actuator-~~(2)~~ so that the stroke of the actuator-~~(2)~~ via the end cap-~~(3')~~ is sufficient to open the valve, and wherein
 - with a movement of the first end cap-~~(3')~~ in the direction of the hydraulic compensation element-~~(13)~~ the first end cap-~~(3')~~ hits the stop-~~(14)~~ and this movement is blocked.
2. (CURRENTLY AMENDED)~~Metering~~ A metering device in accordance with~~according~~ to claim 1, ~~in which~~ wherein the first end cap-~~(3')~~ ~~features~~ comprises a plunger-~~(4)~~ pointing towards the valve unit-~~(B)~~.
3. (CURRENTLY AMENDED)A metering device according to claim 1, wherein~~Metering device in accordance with one of the claims 1 or 2, in which~~ the first end cap-~~(3')~~ is frustoconical, with its lateral surface featuring steps.
4. (CURRENTLY AMENDED)A metering device according to claim 1, wherein ~~Metering device in accordance with one of the previous claims, in which~~ the stop-~~(14)~~ is embodied as a taper on the internal diameter of the housing-~~(1)~~.

5. (CURRENTLY AMENDED) A metering device according to claim 4, wherein
~~Metering device in accordance with claim 4, in which the first end cap (3') features two ears~~
~~(3'a), on the trans-axial plane of which the end cap has an external dimension which is~~
~~greater than the minimum internal dimension of the stop (14).~~
6. (CURRENTLY AMENDED) A metering device according to claim 1, wherein
~~Metering device in accordance with one of the previous claims, in which the actuator is~~
~~provided with a second end cap (7') which is connected to the hydraulic compensation~~
~~element (13).~~
7. (CURRENTLY AMENDED) A metering device according to claim 6, wherein
~~Metering device in accordance with claim 6, in which the second end cap (7') features~~
~~comprises a hole (16) for connecting leads.~~
8. (CURRENTLY AMENDED) A metering device according to claim 1, wherein
~~Metering device in accordance with one of the previous claims, in which the actuator (2) is~~
~~pre-tensioned by means of a tubular spring (8).~~
9. (CURRENTLY AMENDED) A metering device according to claim 1, wherein
~~Metering device in accordance with one of the previous claims, in which the hydraulic~~
~~compensation element (X) is rigid in relation to forces applied for short periods and gives~~
~~way with a thermally induced change of length of the actuator.~~
10. (CURRENTLY AMENDED) A metering device according to claim 1, wherein
~~Metering device in accordance with one of the previous claims, in which the hydraulic~~
~~compensation element (13) features~~comprises:
 - at least one hydraulic chamber, (13e)
 - a housing, (13a)
 - a piston (13b) which can be pushed into the housing,
 - Storage volume (13e) which are sealed externally by means of membranes (13f),~~with~~ wherein the piston or the housing ~~being~~ is connected to the second end cap (7') of the
actuator.

11. (CURRENTLY AMENDED)A metering device according to claim 10, wherein
~~Metering device in accordance with claim 10, in which the hydraulic compensation element~~
~~(13)~~ features a number of hydraulic chambers~~(13e)~~ for improved rigidity.
12. (CURRENTLY AMENDED)A metering device according to claim 10, wherein
~~Metering device in accordance with one of the claims 10 or 11, in which the hydraulic~~
~~chambers(13e) are embodied between axially pressure surfaces of the housing(13a) and of~~
~~the piston(13b).~~
13. (CURRENTLY AMENDED)A metering device according to claim 10, wherein
~~Metering device in accordance with one of the claims 10 to 12, in which the piston(13b) or~~
~~the housing(13a) feature comprises~~ axial holes which connect the storage volumes~~(13e)~~ with
the hydraulic chambers~~(13e)~~, in which case the openings of the holes are provided with non-
return valves.
14. (CURRENTLY AMENDED)A metering device according to claim 10,
wherein~~Metering device in accordance with one of the claims 10 to 13, in which, in the~~
~~hydraulic compensation element of the piston(13b) and the housing(13a) each feature~~
~~comprise~~ different coefficients of thermal expansion.
15. (CURRENTLY AMENDED)A metering device according to claim 1, wherein
~~Metering device in accordance with one of the previous claims, in which the hydraulic~~
~~compensation element(13) is provided with an equalization store which allows for thermal~~
~~changes of volume in the fluid in the hydraulic compensation element.~~
16. (CURRENTLY AMENDED)~~Method~~A method for manufacturing a metering device ~~in~~
~~accordance with one of the previous~~ according to claim 1, in which the first end cap
~~(3')~~ is moved past the stop~~(14)~~ and as a result of a subsequent turn, the end cap and the stop
lie opposite each other such that, with a movement of the end cap in the direction of the
hydraulic compensation element~~(13)~~ the end cap hits the stop and this movement is blocked.
17. (NEW)A metering device, comprising:
- an actuator unit comprising
 - a housing with an actuator introduced into the housing, and

- a hydraulic compensation element able to be filled under pressure with a fluid, which is connected to the actuator, wherein
- a first end of the actuator is provided with a first end cap
- a stop is arranged in the form of a seat on the housing, which is opposite the first end cap and defines a stop position for the first end cap,
- the stop maintains a distance between sealing element of a valve unit and the end cap, with the distance being smaller than the stroke distance effected by the actuator so that the stroke of the actuator via the end cap is sufficient to open the valve,
- with a movement of the first end cap in the direction of the hydraulic compensation element the first end cap hits the stop and this movement is blocked, and
- the first end cap is frustoconical, with its lateral surface featuring steps, and comprises a plunger pointing towards the valve unit.

18. (NEW)A metering device according to claim 17, wherein the stop is embodied as a taper on the internal diameter of the housing.

19. (NEW)A metering device according to claim 18, wherein the first end cap features two ears, on the trans-axial plane of which the end cap has an external dimension which is greater than the minimum internal dimension of the stop.

20. (NEW)A metering device according to claim 17, wherein the actuator is provided with a second end cap which is connected to the hydraulic compensation element.